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TITLE

POLYMERIZED PHTHALOCYANINE

DERIVATIVE CONTAINING DOPING AGENT AND MSM OR MIS ELEMENT

CONTAINING SAME AS SEMICONDUCTIVE LAYER

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ABSTRACT:

PURPOSE: To provide a phthalocyanine polymer which has excellent semicon ducting characteristics and gives MSM or MIS element having excellent rectifica tion characteristics, by irradiating a vapor mixture of a phthalocyanine deriva tive and a doping agent with high-frequency radiation.

CONSTITUTION: A phthalocyanine derivative of formula I (wherein R is H, halogen, 5C or lower alkoxy; Me is H2, Mg, transition metal) is mixture with a doping agent selected from iodine, SO₃, AsF₅, BF₃, SbF₅, NbF₅, TaF₅ and PF₅. The vapor of the mixture is irradiated with high-frequency radiation to obtain the desired polymerized phthalocyanine derivative. The phthalocyanine derivative of formula I can be synthesized by reacting a 4-alkoxyphthalonitrile of formula II with ammonia and subjecting the resulting diiminoisoindoline intermediate to a ring closure condensation reaction.

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